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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,338	07/23/2003	Hartwig Schlesiger	CH-7748/WW-5616	9144
34947	7590	03/29/2005	EXAMINER	
LANXESS CORPORATION 111 RIDC PARK WEST DRIVE PITTSBURGH, PA 15275-1112			HENRY, MICHAEL C	
			ART UNIT	PAPER NUMBER
			1623	
DATE MAILED: 03/29/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/626,338	Applicant(s) SCHLESIGER ET AL.	
	Examiner Michael C. Henry	Art Unit 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/29/04.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-11 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following office action is a responsive to the Amendment filed, 11/29/04.

The amendment filed 11/29/04 affects the application, 10/626,338 as follows:

1. Claims 1-11 have been amended. This leaves claims 1-11.
2. Applicant responds to the rejection under 35 USC 112, 102 and 103 by amending claims 1-11.

The responsive to applicants' arguments is contained herein below.

Claims 1-11 are pending in application

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Block (US 4,474,667).

Claim 1 is a product-by-process claim wherein the applicants claims, "A cellulose derivative having gel-like rheological properties in aqueous solution, characterized in that said cellulose derivative being prepared by a process comprising:

- a) alkalinizing cellulose with aqueous alkali metal hydroxide in the presence of a suspension medium, thereby forming an alkalized cellulose;
- b) reacting the alkalized cellulose with one or more alkylene oxides;

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c) reacting the alkalized cellulose of step (b) with an alkyl halide present in the suspension medium;

d) reacting subsequently or simultaneously with step (c) the alkalized cellulose of step(c) with a crosslinking agent in an amount of 0.0001 to 0.05 eq, where the unit "eq" represents the molar ratio of crosslinking agent relative to the cellulose anhydroglucose unit (AGU), thereby forming an irreversibly crosslinked cellulose derivative;

e) optionally adding a member selected from the group consisting of alkali metal hydroxide, alkylating agent and combinations thereof;

f) optionally separating the irreversibly crosslinked cellulose derivative from the reaction mixture; and

g) optionally purifying and drying the isolated irreversibly crosslinked cellulose derivative.

Block discloses applicant's cellulose derivative (cross-linked hydroxyethyl cellulose derivative) (see Example I, col. 6, lines 49-61). It should be noted that the examiner considers the gel-like rheological properties of the cellulose derivative in aqueous solution, inherent properties of the cellulose derivative. In fact, Block discloses that cross-linked hydroxalkyl cellulose of his invention must be capable of forming small discrete, swollen **gel** particles in aqueous solution (see col. 4, lines 15-30). Furthermore, Block's hydroxalkyl cellulose is cross-linked with the same cross-linking agent as applicant (epichlorohydrin) and therefore should also be irreversibly an irreversibly crosslinked cellulose derivative (see Example I, col. 6, lines 49-61). A quotation from the MPEP (Manual of Patent Examining Procedure, 8 ed., August 2001) pertaining to Product-by-Process Claims is given below in order for further corroborate the

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reason for the aforementioned rejection. The quotation states that “PRODUCT-BY-PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE IMPLIED BY THE STEPS “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).” Dependent claims 2 and 3, which are drawn to cellulose derivatives of claim 1 are also encompassed by the aforementioned rejection. Dependent claims 4-7 which are drawn to said cellulose derivative with specific properties, are also anticipated by Block (see Example I, col. 6, lines 49-61). It should be noted that since Block’s cellulose derivative (cross-linked hydroxyethyl cellulose derivative) is the same as applicant’s claimed cellulose derivative (see Example I, col. 6, lines 49-61), then Block’s cellulose derivative should inherently possess or exhibit the same properties as applicant’s cellulose derivative. In fact, Block discloses that cross-linked hydroxalkyl cellulose of his invention must be capable of forming small discrete, swollen gel particles in aqueous solution (see col. 4, lines 15-30). Furthermore, it should be noted that cellulose derivatives, especially cellulose ethers are gelling agents (i.e, they have gel-like rheological properties in aqueous solution).

Allowable Subject Matter

The following is an examiner’s statement of reasons for allowance: The examiner has found claims 8-11 to be unobvious over the prior art of record and therefore to be allowable over the

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prior art of record. The present invention relates a cellulose derivative having gel-like rheological properties in aqueous solution, and a process of preparing the same. The very relevant prior art documents (US 4,474,667) to this invention discloses a cellulose derivative having gel-like rheological properties in aqueous solution and a process for preparing the said cellulose derivative. However, though the cellulose derivative of the instant invention is anticipated by the prior art document, the process of claims 8-11 of the instant invention are different and unobvious to those of the prior art. For example, the process of the instant invention involves specific steps that are not unobvious to those of the prior art.

Response to Amendment

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

The Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Conclusion

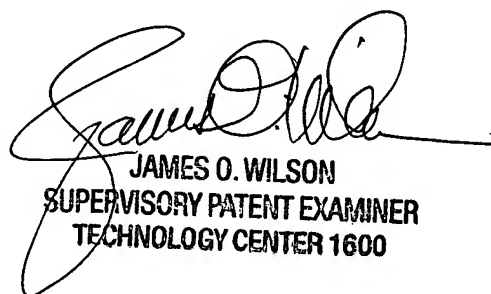
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Henry whose telephone number is 571-272-0652.

The examiner can normally be reached on 8:30 am to 5:00 pm; Mon-Fri. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-1235.

MCH

March 8, 2005.



JAMES O. WILSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600